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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,300	03/07/2002	Ho-Jin Kweon	1567.1027	2618
21171	7590	09/29/2004	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			ALEJANDRO, RAYMOND	
			ART UNIT	PAPER NUMBER
			1745	

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

10/092,300

Applicant(s)

KWEON ET AL.

Examiner

Raymond Alejandro

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 17 September 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 1-6, 10-14, 24, 33 and 36-39.

Claim(s) withdrawn from consideration: 15-23, 32, 34, and 35.

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☒ Other: See Continuation Sheet

Raymond Alejandro
Examiner
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Continuation of 2. NOTE: New issue: (claim 39) currently amended claim 39 now requires a different ground of rejection, that is, the 35 USC 103 rejection is not longer applicable to claim 39 due to the claim amendment. Thus, a new ground of rejection is required.

Continuation of 3. Applicant's reply has overcome the following rejection(s): the new matter rejection for claim 39 has been overcome as well as the 35 USC 103 rejections over both Kweon et al'429 and Bauerlein'682, nonetheless, the new matter rejection and 35 USC 112 reection for claims 36-37 are still maintained for purpose of prosecution (PLEASE, NOTE that this BOX has been CHECKED for purpose of addressing applicant's arguments and comments, however, the proposed amendment has not been entered because of the foregoing new issue).

Continuation of 5. does NOT place the application in condition for allowance because: (please, noted that this box has been checked for purpose of addressing applicant's arguments and comments, however, the proposed amendment has not been entered because of the foregoing new issue).

Continuation of 10. Other: the certified translation of Korean patent application'298 has been made of record. .

Response to Arguments

(please, note that this amendment has not been entered but the examiner is hereinbelow addressing certain applicant's arguments and/or comments raised therein)

1. Applicant's arguments filed 09/17/04 have been fully considered but they are not persuasive.
2. The main contention of applicants' arguments is still premised on the assertion that the prior art does not suggest using either a hydroxide, an oxyhydroxide, an oxycarbonate or a hydroxycarbonate. In this respect, it is pointed out that in addition to the foregoing compounds the present claims as part of a Markush group recitation claims the use of an additive compound selected from the group consisting of a thermal-absorbent element-included hydroxide (refer to claim 1). Therefore, given that the prior art has clearly indicated that lithium hydroxide can be used as the thin film coating the lithiated (LiMn_2O_4) positive active material, it is asserted that the prior art satisfies the requirement of having at least one additive selected from the group consisting of a hydroxide compound.
3. With respect to Applicants' arguments that the prior art does "suggest using a lithium hydroxide, but does not suggest that lithium is thermally absorbent such that the hydroxide disclosed...is not a hydroxide of a thermally absorbent element", the examiner likes to point out that since the recited hydroxide material i.e. *the thermal-absorbent element-included hydroxide* covers a very large number of applicable materials which can be used therefor, it is also contended that any material comprising any hydroxide material would produce an additive compound exhibiting the specific *thermal-absorbent property*. Furthermore, regarding the film having materials not including the properties recited in claim 1, it is noted that products of

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identical chemical composition can not have mutually exclusive properties, and thus, the claimed property of being thermally absorbent, is necessarily present in the prior art material. To be precise, absent further specific chemical composition of hydroxide compounds, it is contended that any hydroxide compound (e.g. lithium hydroxide) exhibits the claimed property.

Additionally, absent further limitation of the specific **degree** of *thermal-absorbing characteristic*, it is strenuously contended that the disclosed lithium hydroxide is able to provide such thermal absorbing characteristic (*either poor or rich thermal absorbent property*). Since there are insubstantial differences between disclosed lithium hydroxide of the prior art and the claimed hydroxide, the burden is shifted to the application to supply, provide or present objective evidence showing that the disclosed hydroxide does not have such thermal-absorbing characteristic.

Accordingly, the examiner also asserts that it is not enough that applicant's representative personally believes that lithium hydroxide is not a thermally absorbent element, especially in the context of a positive active material. That is to say, the arguments of counsel cannot take the place of evidence in the record. An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of inherent anticipation (See ***MPEP 716.01 and 2145: Consideration of Applicant's Rebuttal Arguments***). That is to say, a statement or argument by the attorney is not factual evidence.

4. With respect to the possible presence of boron hydroxide, the examiner never contended that, as a matter of fact, boron hydroxide must be or have got to be present therein, the examiner simply provides a distinctive perspective or scenario (*different than applicant's opinion: as*

applicant is entitled to provide his own perspective and interpretation but also the examiner is entitled to provide, discuss, manifest, discuss and support his own position, interpretation, visualization, and line of reasoning) which may lead one of ordinary skill in the art to consider about the substantial degree of probability or possibility of having, at least, any of the broadly claim additive compound produced by secondary chemical reactions associated to the chemical combination of B_2O_3 and $LiOH \cdot H_2O$ as shown in EXAMPLE 3. Accordingly, the examiner herein reaffirms his position and consequently, the substantial degree of probability or possibility of also having one of ordinary skill in art arriving at the same conclusion about the broadly claimed additive compound. Thus, the assertion that the prior art does not suggest the use of B (at least) as recited in rejected claims 3 and 10 is not sufficient to overcome said rejection. In this regard, it is noted that EXAMPLE 3 shows the use of B_2O_3 and $LiOH \cdot H_2O$ to obtain a fine lithiated powder (EXAMPLE 3 or COL 5, lines 25-45). Accordingly, it is contended that a secondary product of said mixture combination of B_2O_3 and $LiOH \cdot H_2O$ might be a hydroxide of boron. Thus, the burden is shifted to the applicant to provide objective evidence demonstrating that no secondary reactions occur as part of the reacting steps being carried out in EXAMPLE 3. Given that the prior art does not specifically point the particular reaction conversion, reactant consumption, the specific product yielding and/or selectivity, the examiner has a reasonable basis to believed that a boron hydroxide is one of the various secondary products forming during the specific compound combination formulated in EXAMPLE 3.

5. As to the method limitation, i.e. the additive compound being prepared by the specific drying and temperature treatment (heat treatment) and that the resulting structure of the annealed film in Amatucci et al has a different physical structure, it is noted that a method limitation

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incorporated into a product claim does not patentable distinguish the product because what is given patentable consideration is the product itself and not the manner in which the product was made. Therefore, the patentability of a product is independent of how it was made. Hence, the product itself does not depend on the process of making it. Accordingly, in a product-by-process claim, the patentability of a product does not depend on its method of production. In that, it is further noted that the product in the instant claims is the same as or obvious over the product of the prior art. Therefore, since a product-by-process claim is still a product claim and is not limited to the manipulations of the recited steps, only the structure implied by the steps, the burden now shifts to the applicants to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. (Refer to MPEP 2113: Product-by-Process Claims). Yet again, a statement or argument by the attorney is not factual evidence.

6. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "*In contrast, claim 38 recites combining the formed positive active material and the formed additive, which results in a different composition in which the additive is fully realized in the positive active material composition and is not merely present as a thin coating on the positive active material*") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). To the extent the language of claim 38 is understood by the examiner, claim 38 merely recites "*wherein the positive active material is formed by combining a powder containing the positive active material with a powder*

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containing the at least one additive compound in a solvent to form a positive active material slurry to be coated on a current collector of an electrode of the lithium battery". Thus, nowhere in the foregoing claim language the examiner can certainly find support for what applicants appear to be arguing above i.e. combining the formed positive active material and the formed additive, the different composition, the additive is fully realized in the positive active material, the additive is not present as a thin coating. Thus, applicants' arguments are not commensurate in scope with the intended claim language. Nevertheless, the inclusion of the binder matrix and the carbon black material in the positive active material of the prior art provides the necessary physical combination of the active material and the powder (the carbon black).

7. With respect to the 35 USC 103 rejection over Kweon et al'429 and Bauerlein'682, both rejections have been overcome, refer to the amendment of 09/17/04 for additional details. Nonetheless, claims 36-37 remain rejected under the 35 USC 112 rejection (the new matter issue) as such issue has not been satisfactorily resolved for the following reasons:

a) applicants have contended that because their, at least, EXAMPLE 1 and EXAMPLE 4 use $\text{Al}(\text{OH})_3$ powder and $\text{HB}(\text{OH})_2$, respectively, such examples provide sufficient support for claiming "*wherein the at least one additive compound does not include lithium*". Accordingly, it is the examiner's position to point out that while such examples may provide a positive indication of not including lithium in the specific additives of EXAMPLE 1 and 4 per se, the very same examples fail to provide a positive indication of not including lithium in the numerous, many, abundant, incalculable, cosmically infinite majority of additives encompassed by hydroxides, oxyhydroxides, oxycarbonates and hydroxycarbonates. To be exact, the examiner respectfully disagrees with applicants position stating "*that the original specification embraces*

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additives which do not include lithium” because that very same original specification simply exemplifies using certain additives but it is utterly and absolutely silent as to the unquestionable and affirmative exclusion of not using lithium therein. If that is the case, furthermore, it is noted that given that the original specification only exemplifies $\text{Al}(\text{OH})_3$ powder and $\text{HB}(\text{OH})_2$ powder (as argued by applicants), for purposes of legal estoppel, the claim language must also be construed as excluding all of the elements of the Periodic Table but Al, H and B. Then, applicants’ position necessarily translate into acknowledging that the the present claim only has additive compounds consisting of $\text{Al}(\text{OH})_3$ powder or $\text{HB}(\text{OH})_2$ powder (because they are the only ones exemplified and hence, neither of the EXAMPLES include Li nor all of the elements of the Periodic Table but Al, H and B). Thereby, inevitably minimizing the intended scope of the present claims to $\text{Al}(\text{OH})_3$ powder and $\text{HB}(\text{OH})_2$ powder. The examiner would like to know if applicants then agree with the foregoing interpretation, yes or no? Applicant’s cooperation to clarify this is required, and therefore, to set forth the intended estoppel; and metes and bounds of the desired legal protection.

b) in addition, applicants’ double standard of stating that “*Moreover, since borate, aluminate, lithiated aluminate, silicate, and/or lithiated silicate are each large classes of compounds, one of ordinary skill in the art would not immediately determine from these vagues references that Amatucci et al discloses the recited invention*” (refer to the amendment of 09/17/04 at page 13, 1st full paragraph) but at the same time contending that because neither EXAMPLE 1 nor EXAMPLE 4 included lithium as the additive, “*the specification therefore includes additives which do not include lithium such that the original specification clearly embraces additives which do not include lithium*” is not well taken. That is, applicants’ position

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is that is not easy to immediately determine from the vague references that Amatucci et al discloses the claimed additive but it is clearly evident that by reading, interpreting and analyzing applicants' EXAMPLES 1 and 4, one of ordinary skill in the art would immediately determine that Li element is not being included in the additive. The examiner strenuously disagrees with applicants' reconstruction of what is or what is not immediately determined or clearly embraced by a reference, or specification.

Thus, the new matter objection and the 35 USC 112 rejection (new matter issue) for claims 36-37 are still maintained for the reasons of record.

8. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

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